KAAV INTERNATIONAL JOURNAL OF ENGLISH, LITERATURE AND LINGUISTICS
A REFEREED BLIND PEER REVIEW BI-ANNUAL JOURNAL
KIJELL/JAN-JUN (2018)/VOL-5/ISS-1/A1 PAGE NO.1-8
ISSN: 2349 – 4921 IMPACT FACTOR (2017) – 6.9071
WWW.KAAVPUBLICATIONS.ORG

NORWEGIAN AND PERSIAN SPATIAL PREPOSITIONS: A NOVEL COMPARATIVE AND SYNTACTIC APPROACH TO THE SPATIAL PREPOSITIONS

[1]RAJDEEP SINGH
[1]Payame Noor University, Department of Linguistics
Tehran, Iran

ABSTRACT
The goal of this paper is to analyze the syntax of spatial preposition in Norwegian and Persian language. *This account is pretty novel as it analyzes the prepositional phrases in a unified way, since it does not restrict itself to some simple spatial prepositions. Rather, the chosen approach accounts for both simple and complex spatial prepositions. Furthermore, there is a clear difference in spatial prepositions between Persian and Norwegian. In this study, some of the nuanced differences between Persian and Norwegian, when it comes to spatial prepositions, are offered. Moreover, it goes further than this, by analyzing wh-questions responses in the form of spatial prepositions and shows the ungrammaticality of some of the answers by adhering to the principles stated in this novel approach. In this work, some important features of Persian and Norwegian spatial prepositions are further detailed which shows the rich internal structure of spatial preposition and its flexibility of movement/orientation aspect.*

Keywords: *Norwegian, Persian, Spatial Prepositions, Type-Logical Grammars, Lexical Syntax, Argument Demotion, Questions*

INTRODUCTION

Tungseth ME (2006) analyzed the verbal prepositions in Norwegian, which shed some light on the structure of prepositions in norwegian. However, a distinct analysis of the syntactic structure of spatial prepositions was not performed. Pantcheva (2007) classified Persian prepositions in classes and then analyzed them further. However, pantcheva, did not not analyze Persian spatial prepositions separately and in depth. Furthermore, there is no syntactic model in Pantcheva's work which accounts for rich complex Persian SPs. Szymanska O (2010) studied the prepositions på and i from a conceptual perspective. Golfan and yousefirad (2010) approached the Persian spatial prepositions but rather in a semantic way, and from a pedagogical perspective. Parsafar (1996) analyzed Persian spatial prepositions from psychological perspectives and though Parsafar analyzed mind procedures and processes of Farsi (Persian) speakers when it comes to spatial prepositions, there was no attempt to discuss complex spatial prepositions and no model was introduced to predict the spatial preposition behavior in different environment, like in response to wh-questions, or in argument demotion. Ursine (2013) analyzed syntax and semantics of Spanish spatial prepositions in a novel way by type-logical grammars. Roy and Svenonious (2009) worked on the prepositions in general, and brought a model to account for the

presence of prepositional phrases in compositional syntax and semantics, though again, there was no attempt to separate the general prepositional phrases from spatial prepositional phrases. In an interesting study, Nchare and Terzi (2014) analyzed spatial prepositions in Shupamem, a Grassfields Bantu language in Cameroon, in which, the silent structure in spatial prepositions was considered. This silent structure was named as P and acted as head in some structures. Cinque and Rizzi (2010) brought metaphor concept to spatial preposition analysis and tried to map some of these semantic/syntactic concepts in their model, though there was no novel model proposed which account for the predictability of spatial prepositions in syntax.

Norwegian and Persian spatial prepositions

In Norwegian language, spatial prepositions occupy a vast and important aspect of day-to-day language use and it is fair to say that Norwegian is one of the languages that uses the spatial aspect pretty often and in different context. In Persian also, the use of spatial preposition is common and many concepts, like time and place, and even many adverbs bring to evidence this importance in usage. However, there is a lack of syntactic analysis of such an important notion in the linguistic literature and therefore, in this study, this aspect of Persian and Norwegian language is approached. It will be enriching to consider some examples of the usage of spatial prepositions in Norwegian and Persian in A.

1. Man be madrese miravam.
   I go to school.
2. Man in ketab ra dar madrese khandam.
   I read this book at school.
3. Oo be samte kashan harekat kard.
   He went to kashan (a city in Iran).
4. Ketab dar rooye miz gharar darad.
   The book is on the table.
5. Jeg er I banken.
   I am in the bank.
6. Hun er foran meg.
   She is in front of me.

The prepositions be(to), dar (in), be same (towards), dar rooye (on) and in norweian, i (in) and foran (in front of) were used in sentences A . A closer look to these prepositions reveals that in Persian and Norwegian Spatial Prepositions (PSP) there are both simple and complex spatial prepositions. spatial prepositions can be classified further into simple and complex PSP, where simple PSPs are mono-morphemic and the Complex PSPs, on the other hand, have more than one morpheme in their structures. However, when it comes to the direction or movement, PSPs are more telling. In Persian, simple PSPs denote a topological relation between the element and the fixed coordinate or ground and the direction is less emphasized. In complex PSPs, however, usually the relation between the element and the ground does involve the direction and orientation. In Norwegian, there is no such a big division between simple and complex SPs in order to account for the motion. There is some controversy regarding the general classification of SPs (spatial preposition) into locative and directional. In English, for example, static verbs can be used by the verb to be and from this, the categories of locative come. In English, there are prepositions like “through” and “to” can’t be used with the verb “to be” (Zwarts 2005). Others have shown that a locative preposition like “at” can function in the directional way (Tungseth 2006). The same happens in Persian as well. SPs like “jolo” or “aghab” can be used as locative or directional, depending on the context as shown in examples B.

1. Oo jolo hast.
   He is in the front.
2. Oo jolo raft.
   He moved forwards.

Now, it will be insightful to consider Norwegian Spatial prepositions.. Consider examples C. in Norwegian, when there is a movement, some spatial preposition do get changed, as in c.6, which is the

case for spatial preposition opp(up) changing to oppe(in the upper part). In Persian also the movement can be shown with spatial preposition be(towards), however in Norwegian the very internal structure of preposition is modified. Having mentioned this, it is also important to pay attention to the fact that not all Norwegian SPs need to be modified in order to show the stationary vs. movement position. For example, Norwegian SP under(under) does not go under any modification. So again the distinction between stationary and movement oriented prepositions is rather arbitrary. Furthermore, in this study, an explication for the internal structure of SPs is important and of interest.

1. tepet er under bordet
   the carpet is under the table.
2. Treet står framfor bygningen.
   The tree is in front of the building.
3. jeg er på baksiden av huset.
   I am at the back of the house.
4. Han er inne.
   He is inside(of the house).
5. Han er oppe.
   He is upstairs.
6. Han går opp i 2.stasje.
   He goes up to the second floor.

Therefore, flexibility is needed when it comes to this kind of classification and in this study this kind of general classification is not deemed as relevant and is considered to be semantically decided case by case in the context.

There is another type of SPs which is called Boolean (Ursini 2013). These Boolean SPs are shown in examples D and E, in Persian and Norwegian language respectively. It is clear that they should be considered another type of SPs since it is not possible to have an argument demotion test like in example D.3. As Furthermore, the semantics also indicates that Boolean SPs act as a unit just like any other SPs. Argument demotion and wh-questions bring about a very interesting internal structure of SPSs which have not been analyzed. In light of these features, a syntactic model for PSPs will be proposed. A similar word for Spanish SPs was done, regarding their internal structure (Ursini 2013). Argument demotion is the deletion of the argument of the prepositions. An interesting fact about SPs is that they can form a complete phrase in the answer of wh-questions. Let's consider examples D (d.6) and E(e.5) again for wh-questions. Here, the SPP (phrase), is the clear response and is considered a complete phrase by its own rights. Furthermore, the Boolean SPs also behave the same way in wh-questions, which is another indication of their existence as part of the SPs. In the following section, the internal structure of Persian and Norwgian spatial prepositions will be analyzed in depth.

1. Oo chap o rast miravad.
   He goes to the left and right.
   Anha be bala va payin nega mikonand.
2. Oo jolo ye madrese hast. Oo jolo hast.
   He is in front of school. He is in front (of school).
3. Oo bala va payin e dar ra negah kard. *Oo bala va (payin e dar) ra negah kard.
   He looks at the up and down of door. He looks at the up(and down of).
4. Anha koja miravand? Be teatr.
   Where do they go? To the theater.
5. Koja oo ketab ra gharar dad? Dar rooye miz.
   Where did he put the book? On the table.
6. Maryam koja hast? Jolo ya kenare mashin.
   Where is maryam? In front and next to the car.

1. Opp og ved siden av bilen. * opp og (ved siden av bilen)
   Up and next to the car. Up and (back of the door)
2. foran eller bak på døren. * foran eller bak på døren.
   Front or back of the door. Front or (back of the door).
3. Hvor er han? han er på skolen.
   Where is he? He is at school.
4. Hvor gikk han? til stasjonen.
   Where did he go? to the station.
   Hvor går de? opp og ved siden av huset mitt.
   Where do they go? up and next to my house.

SYNTACTIC STRUCTURE OF PSPS: A TYPE-LOGICAL APPROACH

The type-logical approach was used in some analysis of spatial prepositions (Ursini 2013) with the assumptions which were derived from minimalist approach (Hale& Keyser's lexical syntax). What in this study is proposed is a model similar to Ursini's syntactic model for Spanish spatial prepositions (Ursini 2013). Type-logical calculus is a strong tool to work with in order to analyze the very internal structure of PSPs by providing the abstract environment, suitable for a thorough analysis of PSPs structure. It's important to have a complete analysis, not just for simple SPs, but rather for complex SPs as well and TL calculus is definitely the necessary instrument to implement our analysis. Based on the work of Ursini (Ursini, 2013) and type-logical or combinatorial grammar syntactic calculus (Steedman, 2000) a simple model for Persian spatial prepositional was adopted and it will be discussed further subsequently.

First, in this study, it is assumed that syntactic units are combined together via operation merge, which in type-logical calculi is used to connect lexical items. Furthermore, structural information is encoded in order to be used for the combinatorial operation (merge). Naturally, the most complete structure is the one that accepts all of the arguments in its structure or what is called the saturated structure. The possibility to get arguments is represented with P. which represents future possible phrase. For the connection the"/"was adopted. Resultant of connection is binary, idempotent and associative, which is what in type logical grammar was emphasized (Steedman 2000). Merge operation is said binary because the operator takes two units and merges them into one unit. Merge operation is associative because order of operational units does not affect the result. Furthermore, it is idempotent since constituents of the same type yields the same type result. Now, the whole schema is shown in logical form discussed below in 1. Item c is how type unit reduction happens. Item d is closure property.

a. P is a syntactic unit type. (Lexical type)
b. x/y is a type since it is a combination of type x and type. (type information
c. If x/y is a type and y is a type, then the operation (x/y)/y=x and y/(y/x)=x; (type reduction)
d. There is no type unit beyond these elements discussed in 1 to 3. (Closure property)

In order to show the operation in prepositional form, let's consider the elements as Head and Complement. Syntactic type is therefore a result of combination of a head with complements. Based on X bar schema (Haegeman 1994), then a head gets zero, one or at most two complements which called in generative grammar as Specifier-Head or Head-Complement configurations. The possible configurations are illustrated in 2.

a) [Head [Complement]] (a type)
b) [[Specifier]Head[Complement]] (b type)
c) [Specifier]*Head[Complement]] (c type)
d) [Head] (d type)

Now the configurations of spatial prepositions with the P possibility phrases will be shown in 3.

a) [Head [Complement]]=P/P (a type)
b) [[Specifier]Head[Complement]]=P/P/P (b type)

c) [Specifier]*Head[Complement]] =P/*P/P (c type)
d) [Head]=P (d type)

SYNTACTIC ANALYSIS OF PERSIAN SPATIAL PREPOSITIONS

It is better to begin the analysis with an overview of what is considered to be the Head in PSPs. It's important to point out to the fact that based on "p within p hypothesis" (HK: ch.4), spatial Ps (phrases) have recursive structure, therefore a P can be argument for another P. Heads can be null, which is another fact in syntactic structures. So, some Norwegian, English and Persian PSs are examined below, in 4. There are some interesting differences between the Norwegian and Persian SPs. While in Persian the connecter (relational morpheme) e appears in SPs, in Norwegian language, the use of i (meaning in) is close to English SP to and just in some occasions it becomes obligatory like 3.l.

a) next to the station [next] to [the station]
b) in my house [in] (to) [my house]
c) kenar e rahro [kenar] e [rahro]
d) dar bein e ketabha [[dar] (p)[bein]] e [ketabha]]
e) dar madrese [dar] (p) [madrese]
f) zir e miz [zir] e [miz]
g) Moghabel e bimarestan [moghabel] e [bimarestan]
h) az zir e dast [[az] (p) [zir]] e [dast]
i) foran stolen [foran] [P] [stolen]
j) under pulten [under] [p] [pulten]
k) mellom trærne [mellom] [p] [trærne]
l) inn I huset [inn] [i] [huset]
m) I leiligheten [i] [leiligheten]

It is important to look through an important fact about PSPs. The connecter e in Persian is very similar to connecter de in Spanish. Connecter e is a historic relic of adjective maker ig, which through internal changes in Persian language was reduced to e. therefore, e is considered to be the Head not only it acts as head but also based on historical reasons. In sentences 4.d, 4.e, 4.h, head is null. Just as explained above, in Norwegian, like in English, there is no such an obligatory role for i as connector. Based on type-logical hypothesis, further analysis was done below in 5 and 6, in Persian and Norwegian language respectively. It is important to note that here each step was shown with t, which derives from pre-order <I,+>, with "+" denotes the addition operation.

t. [$kenar_{(p)}$]
t+1. [$e_{(p/p/p)}$]
t+2. [$kenar_{(p)}$]/[$e_{(p/p/p)}$]=[p/p [$kenar_{(p)}$] [$e_{(p/p/p)}$]]
t+3. [$rahro_{(p)}$]
t+4. [p/p [$kenar_{(p)}$] [$e_{(p/p/p)}$]]/[$rahro_{(p)}$]]=[p [$kenar_{(p)}$] [$e_{(p/p/p)}$] $rahro_{(p)}$]

t. [$inn_{(p)}$]
t+1. [$i_{(p/p/p)}$]
t+2. [$inn_{(p)}$]/[$i_{(p/p/p)}$]=[p/p [$inn_{(p)}$] [$i_{(p/p/p)}$]]
t+3. [$huset_{(p)}$]
t+4. [p/p [$inn_{(p)}$] [$i_{(p/p/p)}$]]/[$huset_{(p)}$]]=[p [$inn_{(p)}$] [$i_{(p/p/p)}$] $huset_{(p)}$]

Derivation 5 says that PSP phrase kenar e rahro (next to the hallway) is formed by the merging kenar e with rahro. Furthermore, there was a reduction in joining kenar with e. as it can be seen our analysis brought a very clear picture of Persian SPs which is novel and can be used for mathematical modeling of Persian SPs. In 6, the first merge takes place between inn and I, which is an internal structure and outer look takes place between inn i and huset. Let's consider other difficult complex PSPs with the type-

logical analysis. In 7,8 and 9, more SPs were analyzed in Persian and Norwegian respectively. It is very interesting how relational morpheme or connector "e" acts in these sentences and how the Norwegian language abstains from the use of relational morpheme. Therefore, in Norwegian, there is an overwhelming use of null head (no relational morpheme). As in 9, the null head is used in the analysis of foran stolen, in front of the chair.

t. $[zir_{(p)}]$
t+1. $[e_{(p/p/p)}]$
t+2. $[zir_{(p)}]/ [e_{(p/p/p)}]=[_{p/p}[zir_{(p)}] [e_{(p/p/p)}]]$
t+3. $[miz_{(p)}]$
t+4. $[_{p/p}[zir_{(p)}] [e_{(p/p/p)}]]/ [miz_{(p)}]=[_{p}[zir_{(p)}] [e_{(p/p/p)}] [miz_{(p)}]]$

t. $[dar_{(p)}]$
t+1. $[P_{(p/p/p)}]$
t+2. $[dar_{(p)}]/ [p_{(p/p/p)}]=[_{p/p} [dar_{(p)}] [P_{(p/p/p)}]]$
t+3. $[bein_{(p)}]$
t+4. $[_{p/p} [dar_{(p)}] [P_{(p/p/p)}]]/ [bein_{(p)}]=[_{p} [_{p/p} [dar_{(p)}] [P_{(p/p/p)}]] [bein_{(p)}]]$
t.5. $[e_{(p/p/p)}]$
t+6. $[_{p}[dar_{(p)}] [P_{(p/p/p)}] [bein_{(p)}]]/ [e_{(p/p/p)}]= [_{p/p} [_{p} [_{p/p} [dar_{(p)}] [P_{(p/p/p)}]] [bein_{(p)}]] [e_{(p/p/p)}]]$
t+7. $[ketabha_{(p)}]$
t+8. $[_{p/p} [_{p} [_{p/p} [dar_{(p)}] [P_{(p/p/p)}]] [bein_{(p)}]] [e_{(p/p/p)}]]/ [ketabha_{(p)}]$
$=[_{p}[_{p/p} [_{p} [_{p/p} [dar_{(p)}] [P_{(p/p/p)}]] [bein_{(p)}]] [e_{(p/p/p)}]] [ketabha_{(p)}]]$

t. $[foran_{(p)}]$
t+1. $[P_{(p/p/p)}]$
t+2. $[foran_{(p)}]/[P_{(p/p/p)}]=[p/p [foran_{(p)}] [P_{(p/p/p)}]]$
t+3. $[stolen_{(p)}]$
t+4. $[p/p [foran_{(p)}] [P_{(p/p/p)}]]/[stolen_{(p)}]]=[p [foran_{(p)}] [P_{(p/p/p)}] stolen_{(p)}]$

In summary, the derivation in 7, says that first the merge operation with null P (steps t to t+2) is realized and then another merge with the complement in step (t+4) results in a complete spatial prepositional phrase in Persian. The derivation in 8, the structure is truly complicated. Only through this novel approach of type-logical it's possible to analyze such a complex Persian SP. In 6, there is first loop to form the internal structure of dar bein, which composed of null head P. thereafter, the second loop is formed to merge dar bein and relational morpheme e. as said above, the Persian relational morpheme e is the Head. Another merge occurs between step t+6 to t+8 in order to get the complete Persian SP phrase. In 9, steps (t to t+2) are used in order to get the first internal loop and the second loop is to form the whole SP phrase.

Now, let's go back to Boolean spatial phrase and analyze its internal structure. In 10, the type-logical analysis for a Boolean SP, bala va kenar e miz, is done. Furthermore in 11, the Norwegian Boolean SP is analyzed (bak og foran huset).

t. $[bala_{(p)}]$
t+1. $[va_{(p/p/p)}]$
t+2. $[bala_{(p)}]/ [va_{(p/p/p)}]=[_{p/p} [bala_{(p)}] [va_{(p/p/p)}]]$
t+3. $[kenar_{(p)}]$
t+4. $[_{p/p} [bala_{(p)}] [va_{(p/p/p)}]]/ [kenar_{(p)}]=[_{p}[_{p/p} [bala_{(p)}] [va_{(p/p/p)}]] [kenar_{(p)}]]$
t+5. $[e_{(p/p/p)}]$
t+6. $[_{p}[_{p/p} [bala_{(p)}] [va_{(p/p/p)}]] [kenar_{(p)}]]/ [e_{(p/p/p)}]= [_{p/p} [_{p}[_{p/p} [bala_{(p)}] [va_{(p/p/p)}]] [kenar_{(p)}]] [e_{(p/p/p)}]]$
t+7. $[miz_{(p)}]$
t+8. $[_{p/p} [_{p}[_{p/p} [bala_{(p)}] [va_{(p/p/p)}]] [kenar_{(p)}]] [e_{(p/p/p)}]]/ [miz_{(p)}]= [_{p} [_{p/p} [_{p}[_{p/p} [bala_{(p)}] [va_{(p/p/p)}]] [kenar_{(p)}]] [e_{(p/p/p)}]] [miz_{(p)}]]$

t. [bak $_{(p)}$]
t+1. [og $_{(p/p/p)}$]
t+2. [bak $_{(p)}$]/ [og $_{(p/p/p)}$]=[$_{p/p}$ [bak $_{(p)}$] [og $_{(p/p/p)}$]]
t+3. [foran $_{(p)}$]
t+4. [$_{p/p}$ [bak $_{(p)}$] [og $_{(p/p/p)}$]]/ [foran $_{(p)}$]=[$_{p}$[$_{p/p}$ [bak $_{(p)}$] [og $_{(p/p/p)}$]] [foran $_{(p)}$]]
t+5. [P $_{(p/p/p)}$]
t+6. [$_{p}$[$_{p/p}$ [bak $_{(p)}$] [og $_{(p/p/p)}$]] [foran $_{(p)}$]]/ [P $_{(p/p/p)}$]= [$_{p/p}$ [$_{p}$[$_{p/p}$ [bak $_{(p)}$] [og $_{(p/p/p)}$]] [foran $_{(p)}$]] [e $_{(p/p/p)}$]]
t+7. [huset $_{(p)}$]
t+8. [$_{p/p}$ [$_{p}$[$_{p/p}$ [bak $_{(p)}$] [og $_{(p/p/p)}$]] [foran$_{(p)}$]] [P $_{(p/p/p)}$]]/ [huset $_{(p)}$]= [$_{p}$ [$_{p/p}$ [$_{p}$[$_{p/p}$ [bak $_{(p)}$] [og $_{(p/p/p)}$]] [foran $_{(p)}$]] [P $_{(p/p/p)}$]] [huset $_{(p)}$]]

In 10 and 11, the complex PSPs were analyzed which shows how the operation can account for the big complex spatial prepositional phrases. It is important to point out that it is shown that even very complex Boolean type phrases are derived by the same principles which are used to derive simple PSPs. It is good to turn back to the argument demotion and show how it can be accounted for with the novel approach of type-logical analysis. Consider the example 13 and 15, and how demotion is not possible since the resultant is $_{p/p}$ which is not a free constituent. Furthermore, in example 12 and 14, demotion is acceptable since the resultant is a free constituent.

t.5 [$_{p}$[jolo$_{(p)}$] [e$_{(p/p/p)}$] [miz$_{(p)}$]]
t.4 [$_{p}$[jolo$_{(p)}$] ~~[e$_{(p/p/p)}$]~~ ~~[miz$_{(p)}$]]~~

Merge elimination

t+8. [$_{p}$[$_{p}$[[dar$_{(p)}$] [P$_{(p/p/p)}$] [moghabel$_{(p)}$]] e$_{(p/p/p)}$ [manzel$_{(p)}$]]
t+7. [$_{p}$[$_{p}$[[dar$_{(p)}$] [P$_{(p/p/p)}$] [moghabel$_{(p)}$]] e$_{(p/p/p)}$ ~~[manzel$_{(p)}$]~~]= *

Illicit merge elimination

t.5 [$_{p}$[foran$_{(p)}$] [P$_{(p/p/p)}$] [huset$_{(p)}$]]
t.4 [$_{p}$[foran$_{(p)}$] ~~[e$_{(p/p/p)}$]~~ ~~[miz$_{(p)}$]]~~

Merge elimination

t.5 [$_{p}$[inn$_{(p)}$] [i$_{(p/p/p)}$] [huset$_{(p)}$]]
t.4 [$_{p}$[inn$_{(p)}$] [i$_{(p/p/p)}$] ~~[huset$_{(p)}$]]~~

Illicit Merge elimination

It will be appropriate to look back another important concept for the analysis of Persian SPs which was the wh-question answer in SP phrases. In veermat(2003) and Francisco (2013), wh-questions are treated as unary operators which takes constituents and produce sentence types, such as prepositional phrases. Here, a lexical type assignment makes it possible to account for Persian wh-question, koja, which stands for where, in a much more unified and straightforward way. In example sentences 16 and 17, this type of wh-questions with their prepositional phrase answers is treated and analyzed. In 16, it is shown that when a question is derived, here koja, wh-question, as a p/p unit, the answer must be a p unit which acts as a constituent to saturates and completes the question type. Furthermore, in 17, the analysis of Norwegian type response to a wh-question is put. As it is shown, the last two responses are ungrammatical as the resultants have still two possibilities for acquiring arguments and therefore they are not free. Moreover, the last two answer do not satisfy and saturate the question type.

t+k. [$_{p/p}$ Koja maryam miravad?]
t+k+1. [$_{p}$ be madrese], [$_{p}$be moghabel e bimarestan], [$_{p}$ jolo e madrese],[jolo], *[$_{p/p}$ jolo e], *[$_{p/p}$ be moghabel e]

t+k. [$_{p/p}$ hvor er det?]
t+k+1. [$_{p}$ under pulten], [$_{p}$foran skolen], [$_{p}$ baksiden av bilen],[foran], *[$_{p/p}$ inn i]

CONCLUSION AND DISCUSSION

Norwegian and Persian SPs do share some common features as it was shown how their inner structure correlates well. However, while in Norwegian language, the restriction of using a relational morpheme is almost absent. In Persian, conversely, there is an almost obligatory usage of relational morpheme (e) in many SP structures. Furthermore, there was a lack of analysis of SPs in Persian and Norwegian language, and in this paper, this issue was resolved by proposing a novel approach, based on type-logical principle. Complex Persian and Norwegian SPs were not analyzed before, and they are an important part of Persian and Norwegian languages, as they are used overtly in order to show both spatial and temporal conditions. This issue was resolved as the proposed model could solve neatly the problem of analyzing the syntactic structure of complex Persian and Norwegian SPs. To a very good extant, the concept of space in Persian language is formed by free movement between the object and the ground, which is fixed. In Norwegian, on the other hand, the distinction between movement and stationary is much more pronounced. In our analysis, this sense of space in Persian and Norwegian was accounted for as the type-logical model does not change the place of spatial components in order to analyze them. It is also important to point out that the null Head, proposed in the model, has a strong tendency to stop malformed spatial prepositions to be formed in Persian, whereas in Norwegian, its appearance is noticeable in almost any structure, which is another evidence of existence of such an abstract notion.

REFERENCES

- Szymanska O (2010). A conceptual approach towards the use of prepositional phrases in norwegian-the case of “i” and “på”. The international journal of Scandinavian studies, 11.
- Tungseth ME (2006). Verbal prepositions in norwegian. Paths, places and possession. University of tromso, munin.
- Pantcheva M (2006). Persian preposition classes. Nordlyd 33,1.
- Golfam A, Yousefirad F (2010). A cognitive semantic approach to Persian spatial prepositions, a pedagogical perspective, case study: Persian preposition /dar/. Pazhuhesh-e zabanha-ye khareji, 56,167-179.
- Ursine FA (2013). On the syntax and semantics of Spanish spatial prepositions. Borealis-an international journal of Hispanic linguistics, 2,1.
- Roy I, Svenonius P (2009). Complex prepositions. Auteur de la preposition, University of Tromsø.
- Svenonius P (2009). Spatial p in English. In mapping spatial PPs. The cartography of syntactic structures 6, pp.127-160, Oxford university press, Oxford.
- Nchare A, Terzi A (2014). Licensing silent structure: the spatial prepositions of Shupamem. Natural language and linguistics theory, 32, 2, pp 673-710.
- Parsafar P (1996). Spatial prepositions in modern Persian. Linguisti list.
- Cinque G, Rizzi L (2010). Mapping spatial PPs: The cartography of syntactic structures, Oxford university press, Oxford.
- Zwarts J (2005). Prepositional aspect and the algebra of path. Linguistics and philosophy 28, 6, pp 739-779.
- Tungseth ME, Ramchand G (2006). Aspect and verbal positions. Nordlyd, 33,2.
- Steedman M (2000). Information structure and the syntax-phonology interface. Linguistic inquiry, 31, 4, pp. 649-689.
- Haegeman L (1995). The syntax of negation. Cambridge university press.